



MATERIAL SAFETY DATA SHEET
VERTELLUS SPECIALTIES INC.



SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Coal Tar Pitch

Chemical Name: Pitch, coal tar, high-temperature

Synonyms: Roofing Pitch Type I; Roofing Pitch Type III; Electrode Binder Pitch; Anode Binder Pitch; Cathode Binder Pitch; Rod Pitch; 15 Vac Pitch; 925 Pitch; 425 Pitch; CPO-202 Pitch; 30 Medium Pitch; Pitch 77C; 61C Pitch; 85C Pitch

CAS Number: 65996-93-2

Product Use: waterproofing; roofing; industrial anodes, cathodes and electrodes; specialty carbon products

Manufacturer Information: Vertellus Specialties Inc.
300 North Meridian Street, Suite 1500
Indianapolis, Indiana 46204 USA

Emergency Phone Number (24 hr.): (317) 247-8141

CHEMTREC Phone Number (24 hr.): (800) 424-9300
(collect calls accepted)

Non-Emergency Phone Number: (317) 247-8141

International CHEMTREC (24 hr.): (703) 527-3887

Non-Emergency Fax Number: (317) 248-6413
(collect calls accepted; 011 prefix not needed)

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Concentration (%)	Exposure Limits	
			OSHA PEL	ACGIH TLV
Coal Tar Pitch	65996-93-2	100 %	0.2 mg/m ³ as 8-hr TWA (for coal tar pitch volatiles)	0.2 mg/m ³ as 8-hr TWA (for coal tar pitch volatiles)

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview:

A black solid with a slight aromatic odor, which intensifies into a tarry odor upon melting. Carcinogen. Toxic. Irritant. Sensitizer (skin).

Signs and Symptoms of Potential Overexposure:

Coal tar pitch vapors and dust are irritating to the skin, eyes and respiratory tract. Direct skin contact with coal tar pitch dust and/or high vapor concentrations may cause burning and itching, changes in pigmentation, and skin eruptions. When accentuated by sunlight, skin exposure may result in a phototoxic skin reaction. Direct eye contact with the dust may cause inflammation, discomfort, conjunctivitis, and possible abrasion of the cornea. In general, acute oral toxicity is expected to be moderate, but ingestion is not likely to be a primary route of exposure. Symptoms of systemic poisoning after ingestion of other coal tar products include salivation, nausea, vomiting, abdominal discomfort, respiratory difficulties, dizziness, headache, loss of pupillary reflex, cyanosis, hypothermia, and mild convulsions. It is assumed that ingestion of pitch would produce similar symptoms. Care should be taken to ensure that exposure limits for dust are not exceeded if pitch dust is present (OSHA PEL for particulates = 15 mg/m³ for total dust; 5 mg/m³ for respirable fraction).

Primary Route(s) of Entry:

skin contact, skin absorption, eye contact, inhalation, ingestion

Medical Conditions Aggravated by Exposure:

Persons with pre-existing skin disorders or central nervous functional illnesses may be at increased risk from overexposure. Exposure to vapors may aggravate pre-existing lung conditions. This is not likely to be a problem when appropriate procedures are used to minimize exposure.

SECTION 4: FIRST AID MEASURES

Skin Contact:

For contact with solid pitch, remove contaminated clothing and wash exposed area twice with waterless hand cleaner, soap and water, or a mild detergent. Do not use solvents on skin, as they may promote absorption of this material. The exposed area should be examined by medical personnel if irritation or pain persists after washing.

Eye Contact:

Rinse eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting the eyelids.

	GET MEDICAL ATTENTION.
Inhalation:	Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Keep affected person warm and at rest. Give oxygen if respiration is shallow. GET MEDICAL ATTENTION.
Ingestion:	If conscious, induce vomiting to prevent further absorption. Give oxygen if respiration is shallow. GET MEDICAL ATTENTION. Do not give anything by mouth to an unconscious person.
Thermal Exposure:	Contact with molten pitch causes serious burns. For contact with molten product, do not remove contaminated clothing. Flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. Pack affected area with ice and GET MEDICAL ATTENTION immediately.
Delayed Effects:	none known
Note to Physician:	No specific antidote known. Treatment should be based on the judgment of the physician in response to the reactions of the patient.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point:	> 374°F	Method:	TCC	Autoignition Temperature:	> 750°F (399°C)
Flammable Limits:	UFL :		not available	LFL:	not available
Flammability Classification (OSHA):	not applicable				
Hazardous Products of Combustion:	Toxic vapors may be released upon thermal decomposition (nitrogen oxides, carbon monoxide, carbon dioxide, sulfur dioxide, PAH's).				
Potential for Dust Explosion:	Fine pitch dust has a dust explosion potential similar to coal dust, with a minimum cloud ignition temperature of 710°C (1310°F). Dust explosion concentration is 0.035 ounces/cubic foot (1000 mg/0.03 m3).				
Special Flammability Hazards:	Liquid pitch at elevated temperatures will sustain combustion, and may generate vapors that may ignite in the presence of air and a source of ignition. Closed containers may explode when exposed to extreme heat. Solid pitch dust is sensitive to static discharge.				
Appropriate Extinguishing Media:	Water fog, carbon dioxide, dry chemical, foam, sand, steam. Water spray can control unconfined pitch fires, but may cause frothing or eruption in closed tanks.				
Basic Fire Fighting Guidance:	Wear self-contained breathing apparatus and full protective clothing. Skin and eye contact should be avoided. Normal fire fighting procedures may be used.				

SECTION 6: ACCIDENTAL RELEASE MEASURES

Containment Techniques:	If solid pitch is spilled, shovel the spilled material into disposal containers. If liquid pitch is spilled, contain the material using inert solids (i.e., sand, earth, etc.) and allow the material to solidify and cool. Cooled pitch may then be shoveled into disposal containers.
Clean-up Procedures & Equipment:	Wear protective equipment during clean-up. Remove all ignition sources. Ventilate area of spill or leak. Collect material for later disposal. After collection of product, flush area with water.
Evacuation Procedures:	Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Special Instructions:	Avoid dust generation or exposure to hot product during clean up. Ensure thorough decontamination of the release area and clean-up personnel.
Special Reporting Requirements:	Notify appropriate authorities if required by regulation.

SECTION 7: HANDLING AND STORAGE

Storage Precautions:	Protect containers from physical damage, sparks and flames.
Storage Recommendations:	Outside or detached storage is preferable. Maintain dry, ventilated conditions for storage. Containers should be periodically inspected.
Precautions for Unique Hazards:	This material may present a dust explosion hazard in solid form and is sensitive to ignition by electrostatic discharge. Maintain areas below flammable vapor/explosive dust concentrations.
Practices to Minimize Risk:	Wear appropriate protective equipment when performing maintenance on contaminated equipment. Avoid prolonged or repeated contact with skin or breathing of dust and vapors. Do not smoke or eat in areas where this material is handled. Wash hands thoroughly before eating or smoking. A complete soap and water shower should be taken at the end of each work day. Contaminated clothing should not be reworn until cleaned. Launder contaminated clothing separately from other laundry before reuse.

Special Handling Equipment:	Closed system handling of liquid pitch may create excessive vapor concentrations in confined spaces; i.e., tanks, rail cars, tank trailers. Follow appropriate confined space entry procedures when entering any confined space that has been in liquid pitch service.
Dangerous Incompatibility Reactions:	Keep away from strong oxidizing agents.
Incompatibilities with Materials of Construction:	none known

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:	OSHA PEL: 0.2 mg/m ³ as 8-hr TWA (coal tar pitch volatiles)	ACGIH TLV: 0.2 mg/m ³ as 8-hr TWA (coal tar pitch volatiles)
Personal Protective Equipment:	Use NIOSH-approved chemical cartridge respirator with organic vapor cartridges, or any supplied-air respirator as necessary for protection from coal tar pitch volatiles. Wear impervious gloves (i.e., latex rubber), boots, work uniform and safety glasses or chemical goggles. Application of certain protective creams for coal tar products and sunscreens (SPF of at least 15) before and during work may be beneficial in reducing the risk of overexposure.	
Respirator Caution:	Observe OSHA regulations for respirator use (29 CFR 1910.134). Air-purifying respirators must not be used in oxygen-deficient atmospheres.	
Ventilation:	All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided.	
Other Engineering Controls:	All appropriate engineering controls should be used to minimize exposure potential.	
Thermal Hazards:	When handling liquid pitch (i.e., taking samples), wear appropriate thermal protection equipment and use tongs as needed. Use of chemical goggles or faceshields is highly recommended when handling molten material.	
Additive or Synergistic Effects:	Overexposure to this material causes photosensitization of the skin. See sunscreen recommendations above.	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Molecular Formula:	a complex hydrocarbon mixture which includes polynuclear aromatic hydrocarbons (PAH's)
Molecular Weight:	not available
Appearance, State & Odor (ambient temperature):	black solid with slight aromatic odor; becomes black liquid with strong tarry odor upon melting
pH:	not available
Vapor Pressure:	< 1 mm Hg @ 20°C
Vapor Density (air = 1):	> 1.0
Boiling Point:	> 250°C (initial)
Freezing Point:	not available
Melting Point:	not available
Solubility in Water:	insoluble to slightly soluble
Specific Gravity or Density:	1.3 +/- 0.04 @ 15.5°C
VOC Content:	not available
Softening Point:	60°C to 140°C, depending on the specific product
Bulk Density:	> 10.0 lbs/gal
Octanol / Water Partition Coefficient:	not available
Odor Threshold:	not available

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable
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Conditions to Avoid:	Avoid static discharge and generation of dust. Contact with water can cause frothing or eruption of closed tanks.
Incompatibilities:	strong oxidizers
Hazardous Decomposition Products:	none known
Hazardous Polymerization:	will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Oral LD ₅₀ :	6200 mg/kg	Species:	rat		
Acute Dermal LD ₅₀ :	not available	Species:	not available		
Acute Inhalation LC ₅₀ :	not available	Duration:	not available	Species:	not available
Skin / Eye Irritation:	Mild skin irritant / Mild eye irritant				
Target Organs:	Skin, possibly lungs, bladder, kidney and central nervous system.				
Carcinogenicity:	Coal tar pitch volatiles, soots, tars and oils are listed as a carcinogenic category by OSHA, ACGIH, the National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC). Prolonged or repeated contact may lead to dermatitis, and with poor hygienic practices, to more serious skin disorders such as ulcerations, benign skin growths and skin cancer. Some epidemiological studies have suggested that workers exposed to coal tar pitch emissions in Soderberg aluminum manufacturing facilities may have a slightly increased risk of developing lung or bladder cancer. It is important to note, however, that the relevance of these findings to non-Soderberg facilities is currently unknown.				
Teratogenicity:	No data available.				
Reproductive Effects:	No scientific study supports an association between coal tar pitch exposures and human reproductive hazards.				
Neurotoxicity:	No data available.				
Mutagenicity:	Available data characterizes coal tar pitch as a mutagen.				
Additional Toxicity Information:	Overexposures may lead to photosensitization of the skin.				

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	No data available.
Environmental Fate:	No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

US EPA Waste Number:	not applicable
Classification of Waste as Manufactured: (per federal regulations)	Non Hazardous NOTE: Generator is responsible for proper waste characterization. State hazardous waste regulations may differ substantially from federal regulations.
Waste Disposal:	Dispose of this material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws. Note that disposal regulations may also apply to empty containers and equipment rinsates.

SECTION 14: TRANSPORT INFORMATION

DOT Proper Shipping Name:	<i>When shipped < 212°F</i> : RQ Environmentally hazardous substance, solid, n.o.s., (Contains Benzo(a)pyrene and Dibenzo(a,h)anthracene), 9, UN3077, PG III.
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OR

RQ Other Regulated Substance, solid, n.o.s., (Contains Benzo(a)pyrene and Dibenzo(a,h)anthracene), 9, NA3077, PG III.

When shipped 212°F to 374°F: RQ Elevated Temperature Liquid, n.o.s., (Contains Benzo(a)pyrene and Dibenzo(a,h)anthracene), 9, UN3257, PG III.

When shipped > 374°F: RQ Elevated Temperature Liquid, Flammable, n.o.s., (Contains Benzo(a)pyrene and Dibenzo(a,h)anthracene), 3, UN3256, PG III

Emergency Guidebook Numbers: NAERG: 171 for UN3077 or NA3077; 128 for elevated temperature shipments

SECTION 15: REGULATORY INFORMATION

OSHA Hazards: Carcinogen. Toxic. Irritant. Sensitizer (skin).

Chemical Inventory Status:	TSCA: Yes	EINECS: Yes	Canada: Yes - DSL
	Japan: Yes	Korea: Yes	Australia: Yes
	China: Yes	Philippines: Yes	

SARA 313:	Phenanthrene (CAS #: 85-01-8)	1 - 4.5%
	Anthracene (CAS #: 120-12-7)	0.5 - 1.5%
	Polycyclic Aromatic Compounds (PAC's)	4.5 - 5.0%
	Naphthalene (CAS #: 91-20-3)	0% for pitches with softening points ≥ 100C; approx. 0.4% for pitches with softening points < 100C

Other Regulatory Listings: WHMIS Classification:
Class D Division 2 Subdivision A: Very Toxic Material.
Class D Division 2 Subdivision B: Irritant
Class D Division 2 Subdivision B: Sensitizer

Reportable Quantities: Approximately 167 – 222 lbs. (17 – 22 gallons) based on content of benzo(a)pyrene.

State Regulations: MA Haz Substance
CA Prop 65: Contains chemicals known to the State of California to cause cancer.

SECTION 16: OTHER INFORMATION

Precautionary Statement: Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

Vertellus Hazard Rating System:
(Based largely on HMIS and NFPA systems)

H:	3*	F:	1	R:	0
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Revision Date:	19 July 2005	Original Date of Issue:	1985
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Revision Details: Revised Sections 1, 15, 16.